Reconsideration of this application as amended is respectfully requested.

In the Office Action, claims 1, 4-10, 13-20, 22, 23 and 25-30 were pending. Claims 1, 4-10, 13-20, 22, 23 and 25-30 were rejected. In this response, no claim has been canceled. Claims 1, 10, and 20 have been amended. No new matter has been added.

Claims 10, 13-19, 20, 22, 23 and 25-30 are rejected under 35 U.S.C. § 112, second paragraph. In view of the foregoing amendments, it is respectfully submitted that the rejections have been overcome.

Claims 1, 4-10, 13-20, 22-23 and 25-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi, U.S. Patent No. 5,396,631 in view of Buzbee, U.S. Patent No. 5,815,720 and further in view of Granston, U.S. Patent No. 5,966,538.

In view of the foregoing amendments, it is respectfully submitted that claims 1, 4-10, 13-20, 22-23 and 25-30 include limitations that are not disclosed or suggested by the cited references. Specifically, independent claim 1 as amended recites as follows:

> 1.   A method of compiling a source language routine, the method comprising:
>   generating an intermediate language routine from the source language routine provided by a user;
>   specifying an initial value of each routine variable <u>by calling an initialization routine associated with the source language routine provided by the user</u>;
>   performing an optimizing change to the intermediate language routine that results in an altered intermediate language routine, <u>the optimizing change including a change based on a criterion specified by the user</u>;
>   generating a machine language routine from the altered intermediate language routine;
>   initializing the variables to the specified initial value;
>   executing the machine language routine in a computer system having architecture of a target computer system using the initialized values;
>   measuring a characteristic of the execution <u>by calling a measuring routine associated with the source language routine provided by the user</u>; and
>   evaluating whether a stopping criterion after said executing is met based on a result of the measuring and if not, repeating said performing through said measuring, saving the machine language routine having a best measured characteristic, until the stopping criterion is met wherein said characteristic includes at least one of a timing wherein the best measured

timing is a lowest timing, a machine language routine size, and a bus utilization metric.

(Emphasis added)

Independent claim 1 includes reverse communications when optimizing the compiled codes, where the variables of the routine being optimized are initialized by calling an initialization routine associated with the routine being optimized and provided by a user who provides the source code. After the code has been optimized and executed, a measurement is performed by calling a measuring routine associated with the routine being optimized and provided by the user. A result of measurement is used to evaluate whether further iterative operations may be needed until a predetermined stopping criterion has been met. It is respectfully submitted that these limitations are absent from the cited references, individually or in combination.

Rather, Hayashi relates to a conventional compiler that relies on intermediate representation structure data of the compiler (see, Fig. 2, col. 5, line 14 to col. 6, line 52 of Hayashi). There is no communications in Hayashi between the compiler and user provided routines associated with the routine being optimized. All of the optimizations performed by the compiler or optimizer are based on information previously stored in the compiler.

In contrast, independent claim 1 includes runtime communications with the user supplied routine to initialize the variables of the routine being optimized and the measurements of the optimizations are performed by calling the user supplied measurement routine. As a result, the user has more flexibility to specify what to optimize and how to measure the optimization. In order to render a claim obvious, each and every limitation of the claims must be disclosed by the cited references. It is respectfully submitted that Hayashi fails to disclose or suggest these limitations. Similarly, Buzbee and Granston also fail to disclosure the limitations set forth above.

In addition, there is no suggestion within the cited references to combine Hayashi, Buzbee, and Granston. Even if they were combined, such a combination still lacks the limitations set forth above. Therefore, for the reasons discussed above, it is respectfully submitted that independent claim 1 is patentable over the cited references.

Similarly, independent claims 10 and 20 include limitations similar to those recited in claim 1. Thus, for the reasons similar to those discussed above, independent claims 10 and 20 are patentable over the cited references.

Given that the rest of the claims depend from one of the above independent claims, at least for the reasons similar to those discussed above, it is respectfully submitted that the rest of the claims are patentable over the cited references. Withdrawal of the rejections is respectfully requested.

In view of the foregoing, Applicant respectfully submits the present application is now in condition for allowance. If the Examiner believes a telephone conference would expedite or assist in the allowance of the present application, the Examiner is invited to call the undersigned attorney at (408) 720-8300.
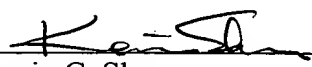
Please charge Deposit Account No. 02-2666 for any shortage of fees in connection with this response.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN

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